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INVENTORY OF FOOD PRODUCTS AND BEVERAGES IN ESTABLISHMENTS THAT SERVE FOOD FOR ON-PREMISE CONSUMPTION

SUPPLEMENT TO Marketing Research Report No. 707

ESTIMATED NUMBER OF DAYS' SUPPLY OF FOOD
AND BEVERAGES IN ESTABLISHMENTS THAT SERVE
FOOD FOR ON-PREMISE CONSUMPTION

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INVENTORY OF FOOD PRODUCTS AND BEVERAGES IN ESTABLISHMENTS THAT SERVE FOOD FOR ON-PREMISE CONSUMPTION

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Background and Procedure

This report presents a special tabulation of food products and beverages on hand in establishments that generally serve food for on-premise consumption. The data were collected in early 1964 and reported first in May 1965 in Marketing Research Report 707, "Estimated Number of Days' Supply of Food and Beverages in Establishments that Serve Food for On-Premise Consumption--A Civil Defense Study." The information in MRR 707 is shown in days' supply measured in caloric values and fluid ounces. Although these are desirable units for planning emergency feeding programs and for other civil defense activities, they are not as meaningful as pound units to those associated with the food industry. Consequently, this supplement gives the food and beverage inventory data in pounds.

Data are listed for major food groups by the establishment's kind of business and type of operation, and for individual food products.

Inventories were developed from a national sample of approximately 7,000 establishments with employees in kinds of business that serve food for on-premise consumption. Establishments from each kind of business were selected on a probability basis according to size and geographic location, with reported number of employees as the measure of size.

Questionnaires were distributed by mail. Establishments were asked to report inventories of selected food groups as of April 2, 1964. All stocks physically located in the establishment, regardless of ownership, were to be included in the stocks reported.

Measures of sampling variability of inventory estimates are provided in table 1 for specified food products and beverages. They indicate the magnitude of possible error that could occur in one out of three cases as a result of using estimates derived from sampling rather than data from complete enumeration. Measures of possible error are in the form of coefficients of variation and are applicable to U.S. totals.

Results

Food and beverage inventories in establishments that serve food for on-premise consumption totaled 892.7 million pounds (table 1).

Soft drinks, beer and ale, and wine, shown in the tables under "other beverages," and fresh and processed fruits and vegetables, accounted for almost two-thirds of the total supply. Sugar and sweets contributed 87.4 million pounds or about 10 percent to stocks on hand.

Each of the food groups remaining--meat and meat substitutes, dairy products, fats and oils, grain products, and miscellaneous--accounted for 4.2 to 5.9 percent of the total.

Certain product categories contributed significantly to the total quantity available in each major food group: beef and seafood accounted for the largest percentage in the meat and meat substitutes group; ice cream constituted over half the dairy group; preserves accounted for 46 percent of sugar and sweets; and potatoes were the most important single item in fruits and vegetables. A complete listing of the food products and nonconcentrated fluids inventoried is given in the appendix (p. 8).

Inventories were tabulated according to the establishment's kind of business. This classification reflects generally the primary source of the establishment's receipts. Thus, food on hand in a restaurant or cafeteria operated as a subordinate service facility by a department store, hospital, or other kind of business is shown under the classification of the kind of business which best describes the establishment.

Included in the survey are kinds of business classified according to the Standard Industrial Classification Manual of the Bureau of the Budget in categories given on page 8. Of these, eating-and-drinking places had 550 million pounds of food and beverages on hand when surveyed. This represents over 61 percent of the total supply. Almost half the inventory of eating-and-drinking places consisted of "other beverages;" an additional 20 percent was in fruits and vegetables. The same establishments accounted for 45 to approximately 80 percent of the inventory of each major food group (table 2).

Hospital inventories totaled 66 million pounds; about 69 percent was in fruits and vegetables. Food stocks in hotels and motels totaled 65 million pounds and in drug stores, 60 million pounds. Fruits and vegetables were the most important items in terms of total volume in hotel and motel stocks, whereas in drug stores, "other beverages" were most important, followed by fruits and vegetables. Nearly half the inventory of department stores consisted of sugar and sweets.

Food stocks were tabulated also by the establishment's type of operation, a classification which reflects the primary method used in serving food to customers and the physical environment of the establishment. For example, an eating-and-drinking establishment may serve its customers cafeteria style; another may provide counter service; and a third may combine these two types of operation.

Food stocks held by regular restaurants (table service), taverns, and these two types of operation in combination totaled 434 million pounds, or almost half the total supply. Stocks held by establishments whose operational types were not determined accounted for 17 percent; cafeterias, for 10 percent; and counter service establishments and other establishments that provided two or more types of operation of about equal importance, for 8 percent each (table 3).

Regular restaurants had proportionately more of each food group than the other reported types of operation, except for fruits and vegetables, "other beverages," and miscellaneous items. Fifty-one percent of the stock of "other beverages" was in taverns, and 32 percent of the stock of miscellaneous items was in cafeterias.

The establishments combining restaurant and tavern operations had slightly more of the stock of fruits and vegetables than the regular restaurants. However, most of the inventory on hand in regular restaurants was in fruits and vegetables, whereas over 50 percent of the inventory on hand in the restaurant-tavern combinations was in "other beverages."

Fruits and vegetables accounted for about 50 percent of the inventory in cafeterias, over 40 percent in catering and counter service establishments, and about 25 percent in lunchrooms and coffee shops.

Almost 95 percent of the inventory in taverns was in "other beverages." Sugar and sweets were the most important group in drive-in and refreshment-stand types of operation.

Seasonality could affect the level of food stocks and the amount on hand of a food group or an individual product class in any kind-of-business or type-of-operation establishment.

Eighty-seven percent of the establishments surveyed operated 12 months of a year. All air transportation, department store, and variety store establishments reported operating throughout the period. Colleges and country clubs were highly seasonal, for only 54 to 57 percent remained open the 12 months. Of the remaining establishments classified independently by kind of business, from 84 to 99 percent reported year-round operation (table 4).

Extreme fluctuations in size of inventories were limited, since the study was conducted in that part of the year during which commercial activity is about normal. The data, however, reflect only amounts of food products and beverages on hand at time of inventory.

Table 1.--Estimated inventory of food groups and specified food products and beverages in establishments that serve food, United States, 1964

Food group and products ^{1/}	Percent of food group	Quantity	Approximate coefficient
		1,000 lb.	of variation Percent
Total, all food groups.....		892,693.6	6.7
Total, meat and meat substitutes.....		46,764.7	6.5
Beef.....	36.9	17,256.2	11.3
Pork.....	13.6	6,360.0	15.9
Veal.....	4.1	1,917.4	25.7
Lamb and mutton.....	1.6	748.2	21.6
Other meats and meat preparations.....	3.5	1,636.8	16.8
Poultry.....	10.4	4,863.5	12.2
Eggs.....	7.3	3,413.8	17.7
Seafood.....	22.6	10,568.8	17.2
Total, dairy products.....		37,330.7	8.5
Cheese.....	17.8	6,644.9	17.4
Cottage cheese.....	1.8	672.0	9.6
Ice cream.....	52.8	19,710.6	9.7
Sherbet and ice milk products.....	27.6	10,303.2	21.9
Total, fats and oils.....		43,691.8	5.7
Butter and margarine.....	15.3	6,684.9	11.6
Liquid salad and cooking oils and shortenings.....	25.4	11,097.7	11.2
Nonliquid lard and shortenings.....	30.5	13,326.0	10.6
Mayonnaise, salad dressings, and spreads with a mayonnaise or salad dressing base.....	28.8	12,583.2	11.2
Total, grain products.....		38,091.9	8.9
Macaroni, spaghetti, and noodle-type products.....	14.3	5,447.1	12.0
Other grain products.....	85.7	32,644.8	10.2
Total, fruits and vegetables.....		246,743.2	5.4
Citrus fruit.....	5.4	13,324.2	55.2
Apple and cranberries.....	5.5	13,570.9	12.3
Apricots, peaches, and mixed fruit.....	8.1	19,986.2	15.9
Bananas, pears, melons, plums, prunes, and pineapples.....	5.8	14,311.1	13.8
Cherries and all other berries.....	3.4	8,389.3	18.3
Citrus juices and drinks.....	8.8	21,713.4	20.0
Other fruit juices, drinks, ades, and nectars.....	6.5	16,038.3	18.4
All nuts.....	0.9	2,220.7	23.2
Asparagus, cauliflower, and tomatoes.....	6.1	15,051.3	17.1
Corn, peas, and mixed vegetables.....	10.2	25,167.8	15.0
Other vegetables except potatoes.....	14.6	36,024.5	14.1
White potatoes.....	13.5	33,310.3	13.5
Sweet potatoes.....	1.9	4,688.1	27.1
Tomato and other vegetable juices.....	4.6	11,350.2	16.2
Tomato paste, puree, and sauce.....	4.7	11,596.9	18.8
Total, sugar and sweets.....		87,415.7	7.5
Sugar.....	30.0	26,224.7	9.9
Preserves, sirups, and honey.....	46.2	40,386.1	14.1
Cocoa and baking chocolate.....	2.4	2,098.0	21.7
Peanut butter.....	2.2	1,923.1	33.9
Candy.....	19.2	16,783.8	10.7
Total, other beverages.....		339,861.9	17.5
Soft drinks.....	20.0	67,972.4	8.7
Beer and ale.....	77.4	263,053.1	22.5
Still fruit and berry wines.....	2.6	8,836.4	17.4
Total, miscellaneous.....		52,793.7	13.1
Condensed soups and chowders.....	13.6	7,179.9	21.2
Prepared soups and chowders.....	39.3	20,747.9	23.5
Other prepared and ready-to-cook foods.....	47.1	24,865.9	18.8

^{1/} See appendix for complete product description.

Table 2.--Estimated inventory of food and beverage stocks in kinds of businesses that serve food, by food group, United States, 1964

Kind of business 1/	Total	Dairy group	Meat and meat sub-stitutes	Fats and oils	Grain products	Fruits and vegetables	Sugar and sweets	Other beverages	Miscellaneous
Total.....	892,693.6	37,330.7	46,764.7	43,691.8	38,091.9	246,743.2	87,415.7	339,861.9	52,793.7
					1,000 pounds				
Air transportation.....	9,120.5	1,521.1	*	33.4	49.3	6,276.8	381.8	*	858.0
Department stores.....	13,293.9	353.5	185.0	1,598.6	2,569.2	1,623.0	6,335.0	119.6	510.0
Variety stores.....	19,996.7	1,159.1	986.0	892.4	1,180.5	2,055.5	8,886.7	3,441.8	1,394.8
Eating-drinking places.....	550,352.6	21,457.6	30,663.9	28,018.0	18,928.5	111,133.4	41,141.8	270,675.4	28,333.9
Drug stores.....	60,651.9	6,220.8	422.0	747.0	333.3	11,355.2	10,116.2	29,243.4	2,213.9
Hotels-Motels, etc.....	65,258.9	2,463.0	4,375.5	2,718.1	2,171.7	34,425.3	2,796.3	11,037.4	5,271.7
Pvt. homes for aged, etc.....	1,758.0	7.3	105.5	22.4	39.9	1,489.8	42.6	2.9	47.7
Country clubs.....	12,872.0	1,040.4	950.5	497.2	307.2	4,065.0	628.2	4,525.3	858.2
Hospitals.....	66,771.0	710.9	3,281.5	3,487.8	3,447.1	45,825.9	4,182.4	1,190.8	4,664.6
Colleges.....	13,139.2	261.4	2,112.9	800.5	1,364.2	4,138.2	1,089.1	180.0	3,193.0
Fraternal groups, etc.....	19,279.4	245.5	967.4	451.9	414.9	3,298.5	641.2	12,820.3	439.8
Other.....	60,199.4	1,890.1	2,714.4	4,424.6	7,286.1	21,056.7	11,194.3	6,625.1	5,008.1
				Percent					
Total.....	100.	100.	100.	100.	100.	100.	100.	100.	100.
Air transportation.....	1.0	4.1	*	.1	.1	2.5	.4	*	1.6
Department stores.....	1.5	.9	.4	3.7	6.7	.8	7.2	**	1.0
Variety stores.....	2.2	3.1	2.1	2.1	3.1	.8	10.2	1.0	2.6
Eating-drinking places.....	61.6	57.5	65.6	64.1	49.7	45.0	47.1	79.6	53.7
Drug stores.....	6.8	16.7	1.0	1.7	.9	4.6	11.6	8.6	4.2
Hotels-Motels, etc.....	7.3	6.6	9.3	6.2	5.7	14.0	3.2	3.2	10.0
Pvt. homes for aged, etc.....	0.2	**	.2	.1	.1	.6	.1	**	.1
Country clubs.....	1.4	2.8	2.0	1.2	1.0	1.6	.7	1.3	1.6
Hospitals.....	7.5	1.9	7.0	8.0	9.0	18.6	4.8	.4	8.8
Colleges.....	1.5	.7	4.5	1.8	3.5	1.7	1.2	.1	6.1
Fraternal groups, etc.....	2.2	.7	2.1	1.0	1.1	1.3	.7	3.3	.9
Other.....	6.7	5.1	5.8	10.0	19.1	8.5	12.8	2.0	9.4
				Percent					
Total.....	100.	4.2	5.2	4.9	4.3	27.6	9.8	38.1	5.9
Air transportation.....	100.	16.7	*	.4	.5	68.8	4.2	*	9.4
Department stores.....	100.	2.7	1.4	12.0	19.3	12.2	47.7	.9	3.8
Variety stores.....	100.	5.8	4.9	4.5	5.9	10.3	44.4	17.2	7.0
Eating-drinking places.....	100.	3.9	5.6	5.1	3.4	20.2	7.5	49.2	5.1
Drug stores.....	100.	10.3	.7	1.2	.6	18.7	16.7	48.2	3.6
Hotels-Motels, etc.....	100.	3.8	6.7	4.2	3.3	52.7	4.3	16.9	8.1
Pvt. homes for aged, etc.....	100.	.4	6.0	1.3	2.3	84.7	2.4	.2	2.7
Country clubs.....	100.	8.1	7.4	3.8	2.4	31.6	4.9	35.1	6.7
Hospitals.....	100.	1.1	4.9	5.2	5.2	68.6	6.2	1.8	7.0
Colleges.....	100.	2.0	16.1	6.1	10.4	31.5	8.3	1.3	24.3
Fraternal groups, etc.....	100.	1.3	5.0	2.3	2.2	17.1	3.3	66.5	2.3
Other.....	100.	3.1	4.5	7.4	12.1	35.0	18.6	11.0	8.3

Table 4.--Percentage of away-from-home eating establishments that operate 12 months o
a year, by kind of business and type of operation, United States, 1964

Kind of business <u>1/</u>	: Percent : operating : full year	:	Type of operation	: Percent : operating : full year
Total.....	87.0		Total	87.0
Air transportation.....	100.0		Restaurant	91.9
Department stores.....	100.0		Tavern	89.0
Variety stores.....	100.0		Cafeteria	83.1
Eating-drinking places.....	87.8		Lunchroom	69.7
Drug stores.....	95.7		Coffee shop	96.4
Hotels-Motels, etc.....	86.4		Drive-in	79.6
Pvt. homes for aged, etc.....	88.5		Counter service	95.8
Country clubs.....	56.6		Refreshment stand	47.2
Hospitals.....	98.6		Caterer	78.0
Colleges.....	54.2		Restaurant-Tavern	89.8
Fraternal groups, etc.....	83.9		Other combinations	86.3
Other.....	56.7		Not determining	73.0

1/ See appendix for complete kind-of-business description.

APPENDIX

Kinds of Business Included in Survey

(From Standard Industrial Classification Manual, Bureau of the Budget, 1957)

Eating-and-drinking places (581)
Hospitals (806)
Colleges, universities, professional schools, and normal schools (822)
Department stores (5311)
Civic, social, and fraternal associations (8641)
Drugstores and proprietary stores (5912)
Hotels, tourist courts, and motels (701)
Golf clubs and country clubs (7947)
Private homes for the aged and retarded children (7022)
Limited price variety stores (5331)
Air transportation carriers (4511 and 4521)
Other away-from-home eating establishments, including:
 Automatic merchandising (5341)
 Cigar stores and stands (5993)
 News dealers and news stands (5994)
 Rooming and boarding houses (7021)
 Sporting and recreational camps (7032)
 Organization hotels and lodging houses, on membership basis (704)
 Motion picture theaters (7831)
 Bowling, billiards and pool establishments (7931)
 Public golf courses (7942)
 Skating rinks (7945)
 Selected recreational establishments (7943-44-46-49)
 Sanatoria, and convalescent and rest homes (8092)
 Elementary and secondary schools (8211)
 Vocational schools (8242)
 Charitable organizations (8671)

Products Inventoried

Dairy group.--Cheese and cheese spreads and cottage cheese. Ice cream, sherbet and ice milk products, all forms.

Meat and meat substitutes.--Beef, lamb and mutton, pork, veal, wild game, prepared luncheon meat loaves, and other meat preparations. Poultry and wild fowl. Seafood. Eggs.

Fats and oils.--Butter and margarine. Lard, salad and cooking oils, shortenings, and other edible animal fats. Mayonnaise, salad dressings, and sandwich spreads with a mayonnaise or salad dressing base.

Grain products.--All forms, including flour, breakfast cereals, popcorn, prepared refrigerated and frozen dough, and macaroni, spaghetti, and noodle-type products.

Fruits and vegetables.--Fruit and vegetable juices, drinks, ades, and nectars. Vegetables, including mixtures. Apples, apricots, bananas, berries, cherries, citrus, melons, nuts, peaches, pears, pineapples, plums, and prunes, including mixtures, sauces, pastes, and purees.

Sugar and sweets.--Sugar, preserves, sirups, and honey. Cocoa, baking chocolate, peanut butter, and candy.

Other beverages.--Soft drinks, beer and ale, and still fruit and berry wine.

Miscellaneous.--Ready-to-cook and ready-prepared products and mixtures, such as hot pies, chile con carne, ravioli, chop suey, baked beans, soups and chowders.

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